

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A process for producing cumene, which comprises supplying cumyl alcohol and hydrogen to a dehydration catalyst to obtain a mixture containing α -methyl styrene and water produced and hydrogen, and supplying the mixture to a hydrogenation catalyst.
2. (original): The process according to claim 1, wherein the dehydration catalyst is activated alumina.
3. (original): The process according to claim 1, wherein the hydrogenation catalyst is a catalyst containing a metal of Group 10 or 11 of the Periodic Table.
4. (original): The process according to claim 3, wherein the metal is palladium or copper.
5. (original): The process according to claim 1, wherein the dehydration catalyst and the hydrogenation catalyst are packed in a single fixed-bed flow reactor.
6. (currently amended): A process for producing propylene oxide, which comprises the following steps:
oxidation step: a step of obtaining cumene hydroperoxide by oxidizing cumene;

epoxidation step: a step of obtaining propylene oxide and cumyl alcohol by reacting cumene hydroperoxide contained in a cumene solution with propylene in an excess amount in the presence of a epoxidation catalyst in a liquid phase;

dehydration step: a step of obtaining α -methyl styrene by dehydrating cumyl alcohol obtained in the epoxidation step in the presence of a dehydration catalyst; and

hydrogenation step: a step of hydrogenating α -methyl styrene in the presence of a hydrogenation catalyst to convert into cumene;

and recycling it to the oxidation step as a raw material,

wherein the dehydration of cumyl alcohol and the hydrogenation of α -methyl styrene obtained by the dehydration said dehydration step and said hydrogenation step are carried out by a method according to any one of claims 1 to 5.